

Seeded Bermudagrass Cultivar Evaluation

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Summary

A year after seeding, the stand of 'F.K.#1' appeared better than stands of 10 of the other 13 seeded entries. By fall, 2014, stands of 'KF-13A,' 'KF-13B,' and 'SWI-800' along with 'F.K.#1' were better than stands of four of the other seeded entries. Late-summer production was higher for KF-13A and 'Midland 99,' the sprigged check, than for five of the other entries.

Introduction

Bermudagrass can be a high-producing, warm-season perennial forage for eastern Kansas when not affected by winterkill. Producers in southeastern Kansas have profited from the use of more winter-hardy varieties that produce more than common bermudagrasses. Seeded types may offer cost savings or other advantages in marginal areas, but some may not have the winter-hardiness necessary to adapt to this latitude. Further developments in bermudagrass breeding should be monitored to speed adoption of improved cold-hardy types.

Experimental Procedures

Fifteen bermudagrass entries were broadcast-seeded at 6 lb/a pure, live seed at the Mound Valley Unit of the Southeast Agricultural Research Center on June 11, 2013 in 10-ft × 30-ft plots. Plugs of 'Midland 99' were planted in designated plots the next day. In 2013, plots were clipped several times. Stands were visually rated on December 2, 2013, and May 19, 2014. Plots with poor stands (Table 1) were no-till interseeded on May 9, 2014. Grassy weeds, primarily fall panicum, were clipped in June and early July, then plots were treated with 3 pt/a of MSMA and 1 lb/a of 2,4-D on July 16. Plots were allowed to grow and were harvested on October 20 from a 3-ft × 20-ft strip of each plot to a 2-in. height with a flail-type harvester.

Results and Discussion

In December 2013, the majority of plots had stands with an average rating >3, which is considered acceptable. By the next May, the stand of 'F.K.#1' appeared better ($P < 0.05$) than stands of 10 of the other 13 seeded entries. By fall, 'KF-13A,' 'KF-13B,' and 'SWI-800' along with 'F.K.#1' had better stands than four of the other seeded entries. Late-summer production was higher for 'KF-13A' and 'Midland 99,' the sprigged check, than for five of the other entries.

Table 1. Seeded bermudagrass stand ratings and late-summer 2014 production, Mound Valley Unit, Southeast Agricultural Research Center

Source	Entry	Stand rating ¹			Late-summer production
		Dec. 2, 2013	May 19, 2014	Oct. 20, 2014	
		----- 0 to 5 -----			t/a
K-F Seeds	KF-13A	3.50	1.75	4.25	2.17
	KF-13B	3.75	2.25	4.00	1.29
	KF-13C	4.50	2.50	3.75	1.64
	KF-13D	3.50	1.00	3.50	1.57
	KF-13F	4.00	1.63	3.50	1.61
Pennington	Mohawk	3.75	1.88	3.25	1.54
	SWI-800	3.50	2.00	4.25	1.76
Nixa Hardware	Cherokee	4.00	2.50	3.75	1.74
Johnston Seed	JSC2007-12 ³	2.50	2.00	3.50	1.40
	JSC2009-1 ³	0.75	1.13	2.50	1.38
	Wrangler ³	1.25	1.13	2.50	1.11
	JSC2009-7 ³	2.00	2.13	3.25	1.71
	JSC2007-1234	3.75	2.00	3.75	1.75
Top Notch Seeds	F.K.#1	4.25	3.50	4.00	1.59
OSU	Midland 99 ²	1.50	0.75	3.00	2.38
Mean		3.10	1.88	3.52	1.64
LSD (0.05)		1.03	1.27	0.84	0.61
CV, %		23	47	17	26

¹ Visually rated, where 0 = no bermudagrass and 5 = solid bermudagrass stand with no blank spots and few weeds.

² Sprigged on June 12, 2013.

³ Two or three replications reseeded no-till at the same rate on May 19, 2014.